JOURNAL OF BALTIC SCIENCE EDUCATION
ISSN 1648-3898 /Print/
ISSN 2538-7138 /Online/

A STUDY OF THE CORRELATION BETWEEN TEACHERS' TEACHING STYLES AND STUDENTS' PARTICIPATION MOTIVATION IN THE PHYSICAL EDUCATION

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Abstract. *Based on Self-determination Theory (SDT), this research intends to analyze the effect of different physical education (PE) teachers' teaching styles on students' class participation motivation in universities. Students of some universities and colleges in Sichuan Province and Shanghai Municipality, China, are researched. Total 871 valid copies of questionnaire are retrieved for testing the research hypotheses. The results reveal positive correlation between incentive, intelligence inspiration and the intrinsic motivation of student learning as well as between charisma and the extrinsic motivation of student learning in transformational leadership. In transactional leadership, contingent reward and positive involving management show positive relationship with the intrinsic motivation of student learning, and negative involving management also presents positive relationship with the extrinsic motivation of student learning. Finally, it is suggested that PE teachers should build the situation which could satisfy the needs of autonomy, sense of competence and sense of belonging as well as create the physical education environment which could satisfy basic psychological needs of autonomy, competence, and sense of belonging to reinforce students' positive motivation on physical education. Sports education is the most important education to develop the students' physical and mental health.*
Keywords: *self-determination theory, physical education, teacher's leadership, participation motivation.*

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Introduction

The progress of industrial development and information network has largely enhanced the time for using information related products. Networking lifestyles allow daily necessities being satisfied without going out. In the technological civilization society, new generation adolescents largely reduce the time for physical activity that the occurrence of civilized illness becomes younger in modern societies. Physical education, as a part of school education, aims to cultivate students' regular exercise habit and to promote national health. American Academy Pediatrics advocated that children and adolescents should actively participate in physical education and regular physical activity. Regular physical activity could benefit the physical and mental health of adolescents, who were at the development stage. From the physiological aspect, exercise could control weight and body fat as well as reduce the occurrence of cardiovascular and chronic diseases; from the psychological aspect, exercise could release stress, reduce the occurrence of anxiety and depression, and promote learning efficiency (Rowland, 1990; Obert, Mandigout, Vinet, N'guyen, Stecken & Courteix, 2001). From the psychological points of view, the initial motivation of an individual proceeding activity is the key factor in the continuity of the behavior. In the domain of psychology, "motivation" is often applied to present individual participation involvement and effort. It is efficient to enhance students' learning interests and participation motivation on physical education activity through physical education in schools, to cultivate the regular exercise habit (Standage, Duda & Ntoumanis, 2003). Accordingly, factors in the physical education participation motivation become primary.

Recent research on motivation was generally based on Deci's (1980) Self-determination Theory (SDT) to understand the effects of individual self-determination of activity engagement on different motivation styles. There were several studies on physical education learning with Self-determination Theory. Hagger, Chatzisarantis, Culverhouse and Biddle (2003) indicated

ISSN 1648–3898 /Print/
ISSN 2538–7138 /Online/

that students' perceived autonomy support in the physical education process would positively regulate students' identification and intrinsic motivation. Aiming at samples from the UK, Greece, and Poland, Hagger, Chatzisarantis, Barkoukis, Wang and Baranowski (2005) also supported such correlation in the research. According to above experimental results, the effects of motivation on students learning physical education exercise were broad. This research therefore intends to analyze students' physical education motivation, based on Self-determination Theory.

Research Focus

From the viewpoint of Self-determination Theory, factors in motivation include successful and failed experience in the past as well as leader behaviors. In the "Educational Social Psychology", Bany and Johnson (1975) regarded "leadership" as an important part of teaching activity, which presented the function to "assist" and "maintain" student learning. Since college students are the subjects in this research, PE teachers' leadership styles would be the key factor in the physical education learning motivation. Research on leadership has gradually focused on charismatic, transformational, and transactional leadership styles. Charismatic leadership was first proposed by Burns (1978); then, Bass (1985) started to develop transformational and transactional leadership styles based on Burns' theory and early studies on charismatic leadership.

Transformational leadership encourages subordinates' intrinsic motivation through higher ideal and value (Burns, 1978; Wu & Tai, 2016), induces subordinates' high-level needs of motivation, affection, and development to cater to the leaders, stimulates subordinates' ability and wisdom and gives individual care to subordinates through leaders' charisma (Bass, 1985) to eventually affect organizational members changing the psychological state and attitudes as well as establishing commitment to organizational objective or mission (Yukl, 1989; Tsai, Wu & Yeh, 2013; Wu, Tsai & Yeh, 2014). Transactional leadership is based on conditional exchange. According to Bass (1985), leaders have the subordinates clearly know the role responsibilities and complete anticipated tasks and give favorable promise to the subordinates. Transactional leadership therefore is based on an exchange process, in which leaders offer rewards for the subordinates' effort and performance.

Physical education in colleges does not simply stress on a single exercise event, but assists students in cultivating the persistent exercise habit to further affect national exercise popularization and overall health standard in the long term. Applying the above leadership style theory to physical education, PE teachers' charisma is the key factor in inducing students' interests in physical education; besides, PE teachers often induce students' motivation on physical education by adding points to further lead students proceeding physical education activity. In sum, the relationship between college PE teachers' leadership styles and college students' physical education motivation is analyzed in this research.

Literature Review

Self-determination Theory is an idea of an individual determining to engage in the behavior because of certain reasons. The so-called reason is the motivation. Motivation refers to an inner process to induce individual activity or maintaining induced activity and have such activity move toward certain goal (Niemiec, Ryan & Deci, 2009; Broeck, Vansteenkiste, Witte, Soenens & Lens, 2010); it could be the direction and strength of an individual participating in the activity. A lot of researchers have proposed various types of motivation, which could be generally divided into "intrinsic motivation" and "extrinsic motivation" (Deci & Ryan, 1985; Gagné & Deci, 2005; Pelletier, Rocchi, Vallerand, Deci & Ryan, 2013). Intrinsic motivation refers to an individual participating in an activity according to personal willingness and experiencing fun and acquiring satisfaction through the activity. Extrinsic motivation, on the other hand, refers to an individual not participating in an activity because of personal interests, but being affected by extrinsic incentives or performing to avoid punishment.

Nonetheless, such a theory has gradually increased the conceptual basis for contemporary research on students' physical education motivation. For example, latest research on physical education, aiming at Self-determination Theory, offered more complete measurement (Standage, Duda & Ntoumanis, 2006; Niemiec & Ryan, 2009; Langan, Blake & Lonsdale, 2013). The basic assumption of Self-determination Theory refers to the factor of social background in individual motivation (e.g. autonomy vs. controllability), well-being, and function. According to the opinion of Deci and Ryan (1985), autonomy-support environment (e.g. social background as supportive choice, creativity, and understanding) could better assist in self-determined motivation, healthy development, and ideal psychological function than controlled environment (e.g. social background as dictatorship, oppression, and order). Past research

ISSN 1648–3898 /Print/
ISSN 2538–7138 /Online/

on physical education revealed direct and positive relationship between autonomy-support environment and self-determined motivation (Hagger et al., 2005). Standage et al. (2006) indicated that perceived autonomy support could positively predict self-determined motivation through needs of autonomy, competence, and sense of belonging. Other research on physical education (Deci & Ryan, 2000; Appleton & Duda, 2016) also discovered the positive benefit acquired from the interaction between students in physical education and teachers who offered autonomy support.

The idea of school teachers' teaching styles is introduced from leadership styles in histology. Teaching styles in this research therefore are explained and described from the aspect of leadership styles. Leadership, as a kind of authority, command and with the meaning of "pull", refers to doing right things and asking for effectiveness naturally and functionally integrating, encouraging, inspiring, and leading the term towards correct directions (Tsai wt al., 2013; Stewart & Shamdasani, 2014) to make changes according to time and location, present choice on tasks, focus on organizational planning or looking for and setting organizational direction in the change so that the organization could adapt to the environment. From above ideas, nature, and function descriptions of leadership, the importance of leadership in a group is understandable, which is not simply to passively control and maintain current situations, but to actively break through the present standard to achieve the success (Piccolo, Bono, Heinitz, Rowold, Duehr & Judge, 2012; Simsek, Jansen, Minichilli & Escriba-Esteve, 2015).

Charismatic and transformational leadership gradually became emerging leadership strategies in 1980. Charismatic leadership integrated the viewpoints of attribution and trait theories, revealing that a leader was attributed as heroic or extraordinary leadership when specific behaviors were viewed. New leadership nowadays refers to transformational leadership, which could be a type of charismatic leadership, but is more than that, as it covers the competence to give vision and various incentive strategies and achieve success for the organization and self-development for individuals (Graen & Uhl-Bien, 1995; Judge, Bono, Ilies & Gerhardt, 2002; Simsek et al., 2015). Transactional and transformational leadership was often utilized in education later on. Furthermore, Bass and Avolio (1989) extracted "incentive" from charismatic leadership and divided involving management into "positive involving management" and "negative involving management" and further developed more complicated Multi factor Leadership Questionnaire (8Y) with broader coverage. The three dimensions in the scale contained the following factors, 1.transformational leadership styles: charisma, incentive, intelligence inspiration, and personal care, 2.transactional leadership styles: contingent reward, positive involving management, and negative involving management, and 3.non-leadership styles: laissez faire. Transactional, transformational, and laissez-faire leadership styles are also applied in this research to analyze students' participation motivation.

Bass (1985) indicated that transactional leaders played the role to have the members understand the work contents and clarify the acquired result as well as give the members full confidence for necessary effort in order to satisfy the needs. As a result, the expected effort of the members could be changed into anticipated work performance. Avolio and Bass (2002) considered that transactional leadership stressed on transaction or exchange, which often occurred among leaders, colleagues and members. Leaders discussed responsibilities and rewards with other members, and the members would receive rewards after completing requested events. Lowe, Kroeck and Sivasubramaniam (1996) regarded transactional leadership as the strategies leaders applied to consult, compromise and bargain, a strategy timely applying rewards, punishment or obligation to urge the members to work and satisfy the members' needs, and a type of leadership strategy to control the achievement of expected goal. Bass, Avolio, Jung and Berson (2003) referred it as leaders perceiving subordinate s' needs, giving affirmation and rewards to subordinates, correcting subordinates' deviant behaviors, and even giving punishment to have the subordinates perceive the immediate feedback.

Sergiovanni (1996) regarded transformational leadership as the value-added leadership, which emphasized high-level, intrinsic, ultimate moral motivation and needs; leaders would induce the members to induce intelligence and exceed the original motivation and expectation. Such leadership presented cultural and moral meanings. In other words, transformational leadership was related to self-esteem, autonomy, self-realization and high-level psychological needs of virtue, justice, responsibility, and obligation. Van Knippenberg and Sitkin (2013) revealed that transformational leadership allowed members enhancing ideal and moral value, encouraged members to present larger effort and performance, and meanwhile, the members would be proud of being a part of the organization, supported, enhanced the self-confidence, and be willing to and promise to achieve the leader's vision. In other words, transformational leadership influenced organizational members and changed the attitudes and premise in order to establish the commitment to organizational mission or goal (Yukl, 1994; Tsai et al., 2013; Wu et al., 2014). Whitford and Moss (2009) pointed out transformational leadership as an interactive process to promote the ambition

ISSN 1648–3898 /Print/
ISSN 2538–7138 /Online/

of leaders and members to achieve the higher level and cooperatively make effort for the change. Avolio and Bass (2002) considered that transformational leadership was expanded from transaction in which leaders would urge others to invest in more effort than the original plan and even exceed the imagination. Such leaders would set more challengeable expectation to enhance the members' moral level, expand their interests as much as possible and allow peers, members, and even supervisors intrinsically concerning about the group, organization, or society so as to have the members achieve the best performance.

Laissez faire leadership style refers to leaders giving total freedom to the subordinates, without interference or intervention. Basically, leaders do not provide any leadership, do not participate in organizational decision-making and administrative operation, and do not offer suggestion and criticism, but allow the subordinates making decisions and even independently solving difficulties occurred in the business execution (Avolio & Bass, 2002; Bass et al., 2003; Moriano, Molero, Topa & Mangin, 2014). Aiming at physical education exercise, Appleton and Duda (2016) regarded laissez faire leadership style as leaders of physical education organizations indulging the development of all affairs without interfering the participation, allowing the development and not giving any feedback or making any effective decisions that all affairs were self-determined by the subordinates. According to above literature discussion and review, it is considered that PE teachers' leadership styles appear correlations with students' learning motivation.

H_1: PE teachers' transformational leadership presents positive and significant relationship with students' learning motivation.

H_2: PE teachers' transactional leadership shows positive and significant relationship with students' learning motivation.

H_3: PE teachers' laissez faire leadership reveals positive and significant relationship with students' learning motivation.

Methodology of Research

Sample of Research

This study is surveyed of some universities and colleges in Sichuan Province and Shanghai Municipality in China who studied in Sports College. This study totally surveyed 1000 questionnaires and 932 valid copies are retrieved, deductions from incomplete questionnaires, this study used 871 valid ones. Among such valid copies, total 683 students (about 78.4% of total samples) are male with the average age 21.4, total 391 students (about 44.9% of total samples) are from Sichuan Province and Shanghai Municipality, and total 738 students (about 84.7% of total samples) exercise more than twice a week.

Instrument and Procedures

Leadership styles. Referring to Multifactor Leadership Questionnaire (8Y) proposed by Avolio and Bass (2002), leadership styles are divided to transformational, transactional and laissez faire leadership styles in this research. The leadership style questionnaire is complied, according to the factors in each leadership style, for college PE teachers. Transformational leadership style, total 12 questions, contains three dimensions of charisma, incentive, and intelligence inspiration, with the Cronbach's A 0.87; transactional leadership style, total 16 questions, includes three dimensions of contingent reward, positive involving management, and negative involving management, with the Cronbach's α 0.85; and, laissez-faire leadership style, total 7 questions, shows the Cronbach's α 0.91. *Learning motivation*. Referring to "Self-determination Theory" proposed by Deci and Ryan (1985), the definitions of intrinsic and extrinsic motivation in Self-determination Theory are modified to fit the college students' physical education motivation questionnaire. The learning motivation covers 12 questions and two dimensions of intrinsic motivation and extrinsic motivation, with the Cronbach's α 0.88. The basic data of respondents contain gender, age, year in college, originated province, and average weekly exercise frequency.

ISSN 1648–3898 /Print/
ISSN 2538–7138 /Online/

Data Analysis

The final SEM results show χ^2/df 1.738, RMSEA =0.0739 less than 0.08, GFI =0.9632, AGFI=0.9761, NFI=0.9794, and CFI=0.9819 higher than 0.95, and PGFI =0.632 also higher than 0.5. The above values show the favorable fitness of the model, explaining that the modified model properly fits the samples, and the path coefficient could reasonably and effectively reflect the causal relationship among latent variables that it could test the hypotheses in this research. The operation is shown in Figure 1.

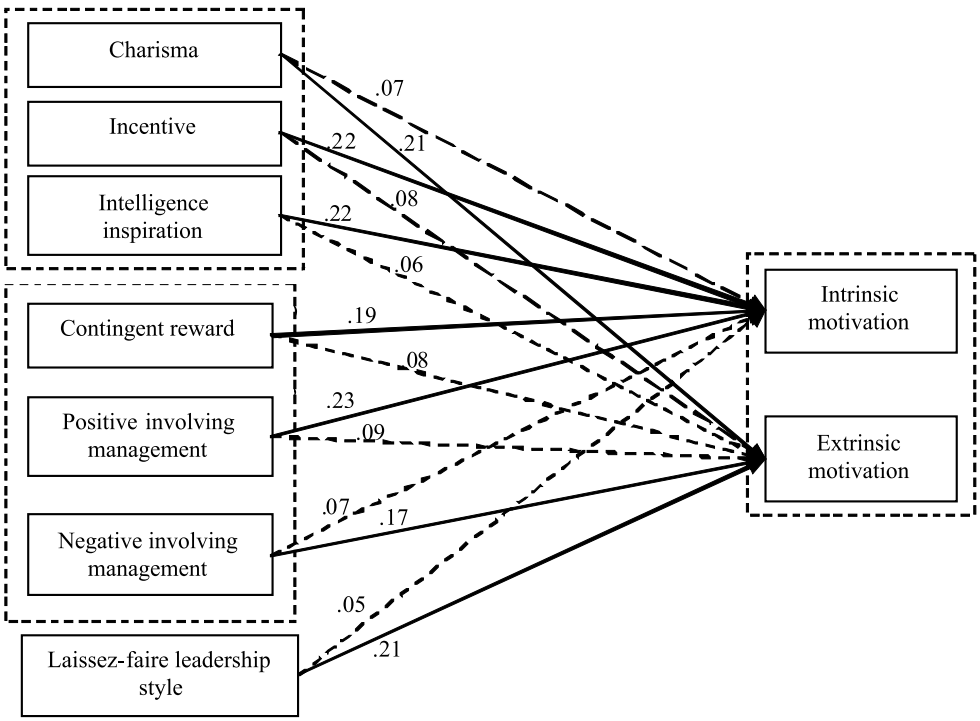

Figure 1: Path analysis model.

What is more, the hypothesis test results can be viewed from Figure 1. Incentive (β = .22, p<.01) and intelligence inspiration (β = .28, p<.01) in transformational leadership of college PE teachers present positive relationship with the intrinsic motivation of student learning; and, charisma (β = .21, p<.01) shows positive relationship with the extrinsic motivation of student learning that H_1 is supported. In transactional leadership, contingent reward (β = .19, p<.01) and positive involving management (β = .23, p<.01) show positive relationship with the intrinsic motivation of student learning; and, negative involving management (β = .17, p<.01) also reveals positive relationship with the extrinsic motivation of student learning that H_2 is supported. Finally, college PE teachers' laissez-faire leadership style (β = .21, p<.01) presents positive relationship with the extrinsic motivation of student learning that H_3 is supported.

Discussion

Intrinsic motivation refers to students being able to learn new knowledge or contact with new affairs from physical education and acquire fun and satisfaction in the participation process. According to the opinion of Deci and Ryan (1985), autonomy-support environment similar to supportive choice, creativity, and understanding, would better benefit the development of self-determined motivation than controllability environment, like dictatorship, oppression, and order. Since "incentive" in leadership styles has positively encouraged the active participation, "intelligence inspiration" mainly encourages the members treating problems with originality and creativity, reorganizing problems, and trying to apply new methods to solve original situations and encouraged innovation without blaming the mistakes (Avolio & Bass, 2002; Piccoloet al., 2012; Simsek et al., 2015). As a consequence,

ISSN 1648–3898 /Print/
ISSN 2538–7138 /Online/

such leadership styles are similar to leaders creating supportive environment that students would perceive being encouraged to innovate and do not fear of being punished because of mistakes, when PE teachers perform such styles. The induced positive affection would have students participate in physical education and further enhance the intrinsic motivation on physical education. Apparently, PE teachers often providing information and stimulating student learning could inspire students' thoughts and concepts and further identify PE teachers' teaching to enhance the intrinsic motivation on physical education. Furthermore, "contingent reward" is a kind of transactional leadership style, where leaders offer "promised reward" and "essential reward". "Promised reward" refers to leaders guaranteeing the members in advance to provide desired rewards according to the performance, while "essential reward" refers to leaders offering desired rewards according to the members' performance (Avolio & Bass, 2002; Stewart & Shamdasani, 2014). "Positive involving management" refers to leaders actively giving instruction to students. Such leadership style is comparatively positive that students can more easily perceive the needs of autonomy or sense of competence. In other words, it is to face students' learning process so that it shows positive effects on students' intrinsic motivation.

What is more, "charismatic" leadership could positively predict students' extrinsic motivation, possibly because PE teachers' charisma would invisibly reinforce students' stress in physical education. Especially, physical education at the college stage is not as emphasized as other subjects because of free will that students invisibly tend to negative attitudes toward the participation in physical education. Nevertheless, some students, although they are not extremely interested in the participation in physical education, would feel shamed or guilty of not participating in physical education, when perceiving that PE teachers could be the model and are admired, respected, and trusted. Moreover, the regression coefficients of laissez faire and negative involving management are positive that students would enhance "extrinsic motivation" when perceiving PE teachers performing higher laissez faire and negative involving management leadership behaviors. Extrinsic regulation refers to students who do not attend physical education because of inner interests, but are controlled by external conditions, e.g. avoiding punishment or grading. It is the motivation style without autonomy in extrinsic motivation as well as the most negative regulation form in extrinsic motivation.

Surprisingly, the research findings reveal that PE teachers' "laissez faire" leadership style would cause effects. Laissez-faire leadership does not care about student performance in class, does not interfere in students' activity in the class, and would not offer punishment and rewards for class management; however, PE teachers in deed still control students' performance. Although PE teachers govern by doing nothing, students cannot control PE teachers' image, because of the large social distance and the dictatorship-like leadership, but merely concern about the punishment on performance. It therefore forms higher tendency to extrinsic regulation motivation. Besides, such leadership cannot form supportive environment that it would foster the development of motivation styles without autonomy. "Negative involving management" mainly refers to PE teachers passively waiting for students' mistakes or deviation behaviors to give guidance and persuasion. Such a leadership style aims to students' mistakes that it invisibly has students feel that PE teachers merely pay attention to mistakes or behaviors. It therefore cultivates students' stronger extrinsic regulation in the physical education activity. Furthermore, negative involving management tends to control tactics and is not a supportive leadership style that it can foster the development of motivation styles with low autonomy.

Conclusions

This research has four conclusions for different teachers' teaching style and students' motivation behavior. The first, "Intelligent Inspiration" leadership style can positively affect students 'positive motivation for physical education, the main reason is that intelligent inspiration is a supportive leadership style, to meet the students' autonomy needs can also produce positive results for students in the impact, and thus be able to meet the needs of students about the sense of ability. The second, "Negative intervention management" and "laissez-faire" leadership style is a less autonomous motive type. The main reason is that passive intervention is a passive leadership, and laissez-faire is a no leadership form. So these two leadership styles will cause students to negative motivation patterns. The third, "Charisma" leadership will positively affect the external motivation, because that the leader of the charm of members is a model of learning, admiration, respect and trust, it should cause students to have a positive impact on learning motivation. And at last, "Laissez-faire" leadership will have a positive impact on the student's external motivation, the result may be due to physical education teachers do not interfere with the activities of students, but to encourage students to form a more autonomous physical education in the form of motivation.

It is suggested that PE teachers should create situations which could satisfy needs of autonomy, sense of competence, and sense of belonging so as to enhance students' positive motivation styles on physical education. In order to foster students' adaptive learning, effort, self-determined motivation, and well-being, PE teachers should create the physical education environment which could satisfy basic psychological needs of autonomy, competence, and sense of belonging. PE teachers should be able to adopt autonomy support dialogue, fully allow students participating in activity planning, and affirm student performance to cater to student needs. Regarding personal care in PE teachers' transformational leadership style not being acquired, future research is suggested to deeply understand the factor, e.g. understanding student perception of such leadership styles in the physical education process through conversation with students. When such leadership styles exist, it is necessary to compile proper questions for the analyses in future research. Otherwise, research on leadership styles would be restricted.

References

Amorose, A. J., & Anderson-Butcher, D. (2007). Autonomy-supportive coaching and self-determined motivation in high school and college athletes: A test of self-determination theory. *Psychology of Sport and Exercise*, *8* (5), 654-670.

Appleton, P. R., & Duda, J. L. (2016). Examining the interactive effects of coach-created empowering and disempowering climate dimensions on athletes' health and functioning. *Psychology of Sport and Exercise*, *26*, 61-70

Avolio, B. J., & Bass, B. M. (2002). Manual for the multifactor leadership questionnaire (Form 5X). Redwood City, CA: Mindgarden.

Bany, M. A., & Johnson, L. V. (1975). *Educational social psychology*. New York: Macmilla.

Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.

Bass, B. M., & Avolio, B. J. (1989). Potential biases in leadership measures: How prototypes, leniency, and general satisfaction relate to ratings and rankings of transformational and transactional leadership constructs. *Educational and Psychological Measurement*, *49* (3), 509-527.

Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, *88* (2), 207-218.

Broeck, A., Vansteenkiste, M., Witte, H., Soenens, B., & Lens, W. (2010). Capturing autonomy, competence, and relatedness at work: Construction and initial validation of the work-related Basic Need Satisfaction scale. *Journal of Occupational and Organizational Psychology*, *83* (4), 981-1002.

Burns, J. M. (1978). *Leadership*. New York: Harper and Row Publishers.

Deci, E. L. (1980). *The psychology of self-determination*. Lexington, MA: Heath

Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, *19* (2), 109-134.

Deci, E. L., & Ryan, R. M. (2000). The" what" and" why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11* (4), 227-268.

Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, *26* (4), 331-362.

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly*, *6* (2), 219-247.

Hagger, M. S., Chatzisarantis, N. L. D., Barkoukis, V., Wang, C. K. J., & Baranowski, J. (2005). Perceived autonomy support in physical education and leisure time physical activity: A cross-cultural evaluation of the trans-contextual model. *Journal of Educational Psychology*, *97*, 376-390.

Hagger, M. S., Chatzisarantis, N. L. D., Culverhouse, T., Biddle, S. J. H. (2003).The process by which perceived autonomy support in physical education promotes leisure-time physical activity intentions and behavior: A trans-contextual model. *Journal of Educational Psychology*, *95*, 784-795.

Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership: a qualitative and quantitative review. Journal of Applied Psychology, *87* (4), 765-780.

Langan, E., Blake, C., & Lonsdale, C. (2013). Systematic review of the effectiveness of interpersonal coach education interventions on athlete outcomes. *Psychology of Sport and Exercise*, *14* (1), 37-49.

Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the MLQ literature. *The Leadership Quarterly, 7* (3), 385-425.

Moriano, J. A., Molero, F., Topa, G., & Mangin, J. P. L. (2014). The influence of transformational leadership and organizational identification on intrapreneurship. *International Entrepreneurship and Management Journal*, *10* (1), 103-119.

Myers, A. M., Weigel, C., Holliday, P. J. (1989). Sex and age linked determinants of physical activity in adulthood. *Canadian Journal of Public Health*, *80*, 256-261.

Niemiec, C. P., & Ryan, R. M. (2009). Autonomy, competence, and relatedness in the classroom Applying self-determination theory to educational practice. *Theory and Research in Education*, *7* (2), 133-144.

Niemiec, C. P., Ryan, R. M., & Deci, E. L. (2009). The path taken: Consequences of attaining intrinsic and extrinsic aspirations in post-college life. *Journal of Research in Personality*, *43* (3), 291-306.

Obert, P., Mandigout, S., Vinet, A., N'guyen, L. D., Stecken, F., & Courteix, D. (2001). Effect of aerobic training and detraining on left ventricular dimensions and diastolic function in prepubertal boys and girls. *International Journal of Sports Medicine*, *22* (02), 90-96.

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(P. 199-206)

ISSN 1648–3898 /Print/
ISSN 2538–7138 /Online/

Pelletier, L. G., Rocchi, M. A., Vallerand, R. J., Deci, E. L., & Ryan, R. M. (2013). Validation of the revised sport motivation scale (SMS-II). *Psychology of Sport and Exercise*, *14* (3), 329-341.

Piccolo, R. F., Bono, J. E., Heinitz, K., Rowold, J., Duehr, E., & Judge, T. A. (2012). The relative impact of complementary leader behaviors: Which matter most? *The Leadership Quarterly*, *23* (3), 567-581.

Rowland, T. W. (1990). *Exercise and children of health*. Champaign, IL: Human Kinetics

Sergiovanni, T. J. (1996). Leadership for the schoolhouse: How is it different? Why is it important? Jossey-Bass, Inc. Publishers, 350 Sansome Street, San Francisco, CA 94104.

Simsek, Z., Jansen, J. J., Minichilli, A., & Escriba, E. A., (2015). Strategic leadership and leaders in entrepreneurial contexts: A nexus for innovation and impact missed? *Journal of Management Studies*, *52* (4), 463-478.

Standage, M., Duda, J. L., & Ntoumanis, N. (2003). A model of contextual motivational in physical education: Using constructs from self-determination and achievement goal theories to predict physical activity intentions. *Journal of Educational Psychology*, *95*, 97-110.

Standage, M., Duda, J. L., & Ntoumanis, N. (2006). Students' motivational processes and their relationship to teacher ratings in school physical education: A self-determination theory approach. *Research Quarterly for Exercise and Sport*, *77* (1), 100-110.

Stewart, D. W., & Shamdasani, P. N. (2014). *Focus groups: Theory and practice*. Sage publications.

Tsai, H. T., Wu, T. J., & Yeh, S. P. (2013). Chinese paternalistic leadership and leadership effectiveness in textile industry. *Autex Research Journal*, *13* (3), 82-88.

Van Knippenberg, D., & Sitkin, S. B. (2013). A critical assessment of charismatic-Transformational leadership research: Back to the drawing board? *The Academy of Management Annals*, *7* (1), 1-60.

Whitford, T., & Moss, S. A. (2009). Transformational leadership in distributed work groups: The moderating role of follower regulatory focus and goal orientation. *Communication Research*, *36* (6), 810-837.

Wu, T. J., & Tai, Y. N. (2016). Effects of multimedia information technology integrated multi-sensory instruction on students' learning motivation and outcome. *EURASIA Journal of Mathematics, Science and Technology Education*, *12* (4), 1065-1074.

Wu, T. J., Tsai, H. T., & Yeh, S. P. (2014). The role of manager's locus of control between perceived guanxi and leadership behavior in family business. *Revista Internacional de Sociologia*, *72* (2), 87-104.

Received: *February 08, 2017* Accepted: *March 20, 2017*

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